

957-10.



*For* **CORRECT**  
**VENTILATION** *use*

**EMERSON**  
*2-Speed*  
**EXHAUST FANS**

FRANKLIN INSTITUTE  
PHILADELPHIA





## Correct Ventilation for Restaurants

It's just good business to provide a clean, comfortable atmosphere for patrons of eating places. Emerson Exhaust Fans take away the steam, cooking odors, and excessive heat . . . quickly, quietly, and efficiently. Correct ventilation pays for itself in increased dividends.

*Here's a Big Field for Sales*

## Places Where EMERSON Exhaust Fans Should be Installed ... Purposes for Which Used

PLACES	USED TO EXHAUST	PLACES	USED TO EXHAUST
<b>AGRICULTURAL:</b> Dairy Barns . . . . . Dairy Bottling Rooms . . . . .	Odors, Fumes. Stagnant Air, Steam, Odors.	<b>HOTELS:</b> Assembly Rooms—Display Rooms . . . . . Kitchens—Dining Rooms . . . . . Tap Rooms and Shops . . . . . Lavatories—Engine Rooms . . . . . Laundry—Large Halls . . . . .	Heat, Steam, Smoke, Odors, Stagnant Air.
<b>APARTMENTS:</b> Engine Rooms . . . . . Kitchens . . . . . Large Halls . . . . .	Excessive Heat. Heat, Steam, Odors. Stagnant Air.	<b>INDUSTRIAL:</b> <b>Factories—General:</b> Battery Rooms . . . . . Engine Rooms . . . . . Heat Treating Rooms . . . . . Lavatories . . . . . Work Rooms . . . . .	Poisonous Fumes. Excessive Heat and Steam. Excessive Heat. Bad Air. Dust and Heat.
<b>BAKERIES:</b> Baking Rooms and Sales Room . .	Excessive Heat.	<b>LODGE AND CLUB BUILDINGS:</b> Assembly Rooms—Card Rooms . . Kitchens—Lavatories—Game Rooms—Gymnasiums . . . . .	Heat, Steam, Smoke, Odors, Stagnant Air.
<b>CHEMICAL PLANTS:</b> Compounding Rooms . . . . .	Fumes, Steam, Excessive Heat.	<b>MEAT PACKING PLANTS:</b> Slaughter and Packing Rooms . . .	Heat, Steam and Odors.
<b>COMMERCIAL LAUNDRIES:</b> Drying Rooms . . . . . Washing and Ironing Rooms . . .	Excessive Heat, Steam, Moisture. Distributing Warm Air for Quick Drying.	<b>OFFICES</b> . . . . .	Stagnant Air, Smoke.
<b>EATING PLACES:</b> Cafes, Restaurants, Taverns, Cafeterias: Dining Rooms . . . . . Kitchens—over steam tables . . . Tap Rooms . . . . .	Excessive Heat, Steam, Smoke, Cooking Odors.	<b>RECREATIONAL PLACES:</b> Assembly Rooms . . . . . Bowling Alleys, Pool Rooms, Dance Halls, Game Rooms— Lavatories . . . . .	Smoke, Stagnant Air, Odors.
<b>ENGRAVING, PRINTING AND NEWSPAPER PLANTS:</b> Etching and Electroplating Rooms	Injurious Fumes.	<b>SCHOOLS:</b> Class Rooms—Assembly Rooms Gymnasiums—Lunch Rooms— Lavatories . . . . .	Stagnant Air, also to Control Circulation of Heat.
<b>GARAGES—SERVICE STATIONS:</b> Work and Test Rooms . . . . .	Dangerous and Injurious Fumes (Carbon Monoxide).	<b>THEATRES:</b> Assembly Rooms . . . . . Lavatories . . . . . Projector Rooms . . . . .	Heat, Odors, Stagnant Air.
<b>HOMES:</b> Attic Installation . . . . .	Summer Heat (see page 7).		
<b>HOSPITALS:</b> Kitchens . . . . . Large Halls . . . . . Laundries . . . . . Sterilizing Rooms . . . . .	Steam, Odors, Heat. Stagnant Air. Steam, Excessive Heat. Steam, Odors.		

*You Can Sell More Installations by Featuring EMERSON Exhaust Fans!*



# Removing Bad Air in Work Rooms

Correct ventilation is essential to efficient production. Bad air reduces vitality and causes fatigue, resulting in inferior work and lower productive capacity. Emerson Exhaust Fans keep the air in constant motion and eliminate injurious fumes and dust, steam and heat.

*Every Industrial Plant is a Prospect*



MAR 23 1937

## The New EMERSON Exhaust Fan Has All These Features

### 1. Fully Enclosed Motor

The motor has all the latest Emerson features of design, with windings and working parts fully enclosed, to protect them from dust, grit, grease and fumes.

The motor is self-cooled. The constant stream of air passing over the motor, while it is in operation, prevents overheating, even when operated continuously on high or low speed.

Each motor is individually tested for starting torque and it is also tested for speed, watts and current input under free, full and overload conditions; also, high voltage "ground," and insulation test in conformity with the National Electrical Mfrs. Assn. standards.

### 3. For Horizontal or Vertical Operation

These fans may be installed in horizontal or vertical position, or at any desired angle, without injury to the motor, or the efficiency of its operation. The motor operates on special thrust-type ball bearings, packed with grease lubricant and sealed against leakage. Lubrication once a year is the only attention required.



### 2. Special Design Blades

The Emerson Exhaust Fan Blade is a new creation of Emerson Engineers. It is made of (Galvaneal) corrosion resisting steel, and specially formed for maximum operating efficiency, without sacrificing quietness. Each assembled fan has nine of these overlapping blades mounted on a large center disc, to prevent the flow of a reverse air current back through the fan, near the hub.

An extremely durable dark green finish is applied on the blades and will withstand the elements. Frequent cleaning will not harm the finish.

### 4. Steel Supporting Arms and Mounting Ring

Specially formed, heavy gauge steel supporting arms are riveted to the formed steel mounting ring. The arms are also securely riveted to the motor clamping ring. These parts are finished in a durable black enamel. The mounting ring has four drilled holes for easy attachment.

### 5. Two-Speed, Single-Phase Motors

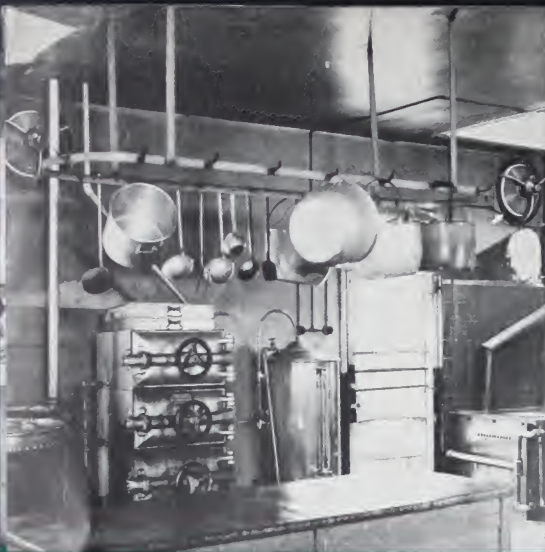
These motors are Emerson two-speed, resistance split-phase types and have the famous Emerson "patented" cut-out, which eliminates the starting winding from the circuit after the fan has attained full speed. Under endurance tests this cut-out has given in excess of 300,000 starts—a remarkable performance record for such severe service.

Each Emerson Exhaust fan carries a one-year factory-to-user guarantee against electrical or mechanical defects.

### 6. Three-Phase and D.C. Motors

Polyphase types can be used as single-speed fans or with 3-speed controls. These control units have eight speed terminals, which permit selection of the three speeds desired from a wide range. The maximum reduction is 50 per cent of high speed. Direct-current types do not require starters and may be used as single-speed fans or installed with rheostat in series with motor so that speed reduction of at least 50 per cent can be obtained.





## A Necessity In Kitchens

Emerson Exhaust Fans perform a double service in kitchens. They exhaust the steam, smoke, and excessive heat while preventing the spread of cooking odors and grease-laden air to the dining room. Well ventilated eating places have a decided advantage.

*There's Money in "Good Air"*

## Helpful Installation Information

In determining the proper exhaust fan equipment for any installation, these two factors must be considered; (1) Size of room, store or other space to be ventilated. (2) Number of times per hour the air is to be changed.

After determining the number of cubic feet of air in the space to be ventilated, multiply that figure by the number of times per hour the air is to be changed. The resulting figure gives the volume of air to be removed per hour and determines the size of exhaust fan or number of exhaust fans needed. Sizes of exhaust fans and air-moving capacity of each are given on the opposite page.

The following example will illustrate how this is done:

**Problem:** Kitchen, 18 feet wide, 20 feet long and 10 feet from floor to ceiling. To compute the cubical contents of the kitchen proceed as follows:

18 ft. (width) x 20 ft. (length) = 360 sq. ft. floor area.  
 360 ft. x 10 ft. (height) = 3600 cubic feet total contents.  
 3600 ft. x 15 (number of changes per hour max.) = 54,000 cubic feet of air per hour that must be removed.

By referring to the table on capacities, we find that a 16-inch fan has a free air capacity of 1500 C.F.M. or 90,000 cubic feet per hour, which will handle the requirements of this installation.

An exhaust fan draws air from a room and creates a partial vacuum. To obtain full fan capacity it is necessary to provide air inlets to the room and these inlets in the form of doors or windows should be in the wall opposite the fan. This will permit the entering air to pass through the entire length of the

room before reaching the fan, assuring thorough ventilation. Always install to exhaust with prevailing winds and not against them, for best results.

In places where odors, steam, smoke or excessive heat prevail, the fan should be placed near the ceiling.

In kitchens, the fans should be placed near the stove and close to the ceiling. This will be a direct aid in preventing the circulation of smoke, steam and odors to other parts of the room. Install directly in the outside wall or upper part of a window.

In garages, chemical plants, and similar places, where the escaping gases or fumes are heavier than air, the exhaust fan should be located near the floor. In such cases, safety laws of many states require that the blades be covered with a wire guard.

### Specific Installation Information

The table, below, gives the recommended air changes for the average type of installation. Where specific recommendations are desired, Emerson Engineers will be glad to help you—send such requests to the main office at St. Louis. Make a rough sketch of the building floor plan and give the following information.

1. Room Size—Width, Length and Height.
2. Mark Windows and Doors—give sizes, and indicate location.
3. Indicate position of Building by marking North, South, East and West Walls. Indicate adjacent buildings, alleys and streets.
4. Give the direction of prevailing winds. From.....To.....
5. Purpose for which room is used.
6. Number of persons normally occupying the room.

**Table Showing Air Changes Recommended by Emerson Engineers**

Type of Building or Room	Required Changes per Hour	Type of Building or Room	Required Changes per Hour
Club rooms, billiard and card rooms.....	6- 8	Public lavatories.....	18-25
Dining rooms.....	2- 3	Garages and laundries.....	10-15
Sleeping quarters.....	1- 2	Restaurants.....	10-14
Offices, banks, drug, grocery and barber shops.....	4- 6	Kitchens.....	12-15
Smoking rooms and bowling alleys.....	8-10	Markets.....	8-12

*Refer Your Ventilating Problems to EMERSON Engineers!*



# Laundries Require Ventilation

The elimination of excess humidity caused by the evaporation of large quantities of water (steam) in the washing and ironing of clothes, is a major problem in laundry operation. Elimination of excessive heat is equally important, to keep workers comfortable.

## *A Profitable Service to Business*



## EMERSON Exhaust Fan Performance—Supplementary Installation Information

Where ducts must be used they should be as short and direct as possible, as each bend and elbow reduces the fan efficiency. Ducts should be of ample size, preferably round and from 2 to 6 inches larger in diameter than the fan. If rectangular, they should be as nearly square as possible and have 50 per cent greater area than the area of a circle of the same diameter as the fan used.

The exhaust fan should be located on the discharge end of duct, drawing air through the duct, wherever possible. If it is mounted on the intake end, blowing into duct, the air turbulence will increase the noise and also further reduce the air delivery.

Static pressure is the measure of resistance to the flow of air through a duct. (The retarding of the air flow caused by friction between the moving air and the duct surface.) Friction losses vary directly as the square of the velocity and inversely as the diameter of the duct. Consequently, as the fan speed is reduced,

there is a corresponding reduction in velocity and static pressure (friction loss).

The air deliveries given for low-speed operation do not represent air deliveries against static pressures given in the heading of the table, but represent air deliveries on installations for a given static pressure, with fan operating on high speed.

*Example:* A 24" exhaust fan operating at 860 r. p. m. (high speed) against .1" static pressure delivers 3600 C. F. M. When this fan is operated on low speed, 570 r. p. m. on the same installation, the static pressure drops to approximately .044" and the air delivery through the duct against the reduced pressure is 2500 C. F. M.

The following table gives performance of Emerson exhaust fans for free air delivery and against various static pressures. The static pressures listed represent the static pressure expressed in inches of water on an installation with the fan operating on high speed.

**Performance in Free Air and Against Static Pressures**

Size Fan	RPM	CFM Free Air	CFM Under Static Pressure (Inches of Water)									
			.05	.1	.15	.2	.25	.3	.35	.4	.45	.5
12"	1140	850	700	500	300							
	860	725	525	375	230							
16"	1140	1500	1350	1150	925	670	400					
	860	1125	1050	875	700	500	300					
18"	1140	2350	2150	2000	1750	1550	1200	700	400			
	860	1750	1650	1500	1300	1150	900	570	300			
24"	860	4000	3800	3600	3300	3000	2700	2300	2000	1500	900	400
	570	2700	2550	2500	2200	2000	1800	1500	1300	1000	650	250
30"	685	6700	6200	5740	5240	4800	4350	3860	3360	2700	2200	1500
	570	5600	5180	4750	4350	4000	3620	3200	2780	2300	1820	1240

CFM—Cubic feet of air per minute.

RPM—Speed of fan in revolutions per minute.





## To Remove Dangerous Fumes

The need of ventilation in garages, to exhaust dangerous carbon monoxide gas, is familiar to everyone—yet, it is only one of many different types of businesses that have a similar requirement. Here, in the field of industry, ventilation is more than just good business.

*Every Business Needs Proper Ventilation*

## EMERSON Automatic Shutters and Control Units

To automatically close the opening when the exhaust fan is located on an outside wall and not in operation, this automatic shutter will be found very satisfactory.

The louvers are made of aluminum, and each shutter is individually hung on corrosion-proof brass pins, to assure continuous service, without attention.



When the fan is started, the louvers being light in weight, stand out straight and give practically no resistance to the flow of air. When the fan is stopped they close of their own weight and because of the tie-rod connecting the individual shutters they do not rattle or open, even in a high wind.



### Two-Speed Snap Switch Furnished With Single-Phase Fans

A porcelain base, two-speed snap switch is furnished with all single-phase exhaust fans. The 12, 16, 18 and 24-inch fans have a snap switch with an indicator showing first-speed, second-speed and off positions. The 30-inch fans have a snap switch with an indicator showing first-speed, off, second-speed and off positions.

These switches may be located at any place convenient for the control of the fans, however, they should be connected through a fuse block for protection of the motor windings.



### Control Units for 220-Volt Three-Phase Fans (not included in price of fan)

These fans may be operated as single-speed fans by being thrown directly across the line and operation controlled by a single-speed snap or knife switch. If speed regulation is desired, the Emerson Control Unit offers a selection of eight speeds, any three of which can be selected for fan operation—controlled by the snap switch on the control unit. This control unit may be placed at any convenient place, but should be connected through a fuse block.

### Speed Regulators for Direct-Current Fans (not furnished with fans)

Direct-current fans may be operated as single-speed fans by being thrown directly across the line and controlled by a single-speed snap or knife switch. If speed regulation is desired, a rheostat may be procured from any supplier of electrical equipment. Care should be exercised, however, to see that it is of the same horsepower rating as stamped on the nameplate of the motor.

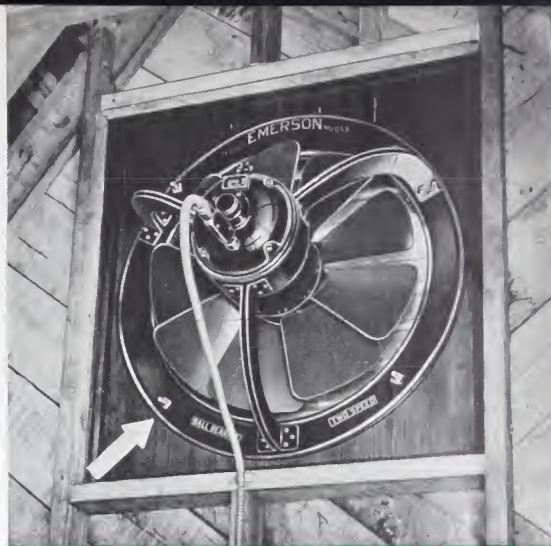
*Demonstrate EMERSON Exhaust Fans — It Will Increase Your Sales!*



# Home Ventilation

To cool the home on hot Summer nights, all that is needed is an Emerson Exhaust Fan installed in the attic. With a click of the switch—OUT GOES THE HOT AIR—IN COMES THE COOL OUTSIDE AIR! Actually, the Emerson Home Ventilator works like magic.

*Sell Comfort and You'll Sell Emerson Fans*



## The EMERSON Exhaust Fan Solves the Problem of Home Ventilation » » »

By placing registers in the ceiling or trap doors in closets, the air is drawn from all the rooms up to the attic and exhausted outside.

Turn on the fan about sundown—close the upstairs windows—open the windows on the first floor and in a short time the first floor will be as cool as outdoors.

Along about bedtime, close the first floor windows, open those in the bedrooms and they'll become delightfully comfortable in spite of the most torrid weather.



### ST. LOUIS UNION TRUST COMPANY CAPITAL AND SURPLUS \$10,000,000.00 ST. LOUIS, U. S. A.

JOHN R. SHEPLEY  
VICE PRESIDENT

May 9, 1934.

Emerson Electric Manufacturing Co.,  
20th and Washington Ave.,  
St. Louis, Mo.

Dear Sirs:

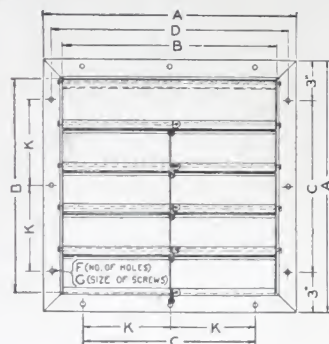
I am very pleased to report the results obtained in my residence on the St. Louis Country Club Grounds through the installation of one of your exhaust fans in the attic of our house. This installation was made about a year ago. As you will recall, last summer was an extremely hot one. We found that by turning on the fan at sundown, the temperatures in the upstairs bedrooms were reduced to approximately the outside temperatures by about nine o'clock in the evening, whereas prior to the installation of your fan the bedroom temperatures did not reach the outside temperatures until approximately one or two o'clock in the morning. Our house is insulated with one or two of the modern insulation materials, and I believe is considerably cooler than the average house. In spite of this, we did experience uncomfortable nights when there was no air stirring, due to the fact that it was not until the early morning hours that the outside air would finally permeate the bedrooms. The fan has solved this problem for us. I would also like to say that its actual operation is most satisfactory, the fan being exceedingly quiet and smooth, even when turned on at full speed.

Very truly yours,

*John R. Shepley*



# Dimensions » Performance » Prices

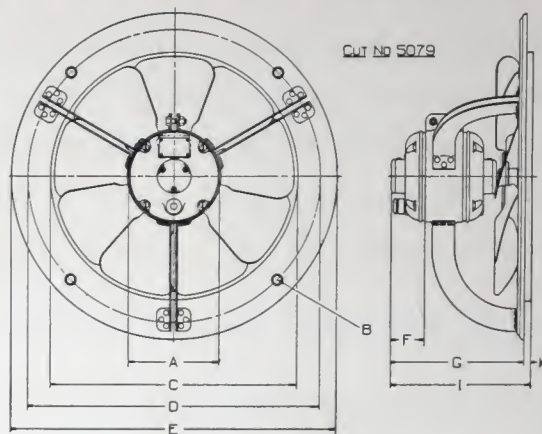


CUT No. 5258



DIMENSIONS—AUTOMATIC SHUTTERS

Size of Fan	A	B	C	D	E	F	G	H	J	K
12-inch.....	14 3/4"	12"	8 3/4"	13 3/4"	1 1/2"	8	1 1/4"	3"	1 1/2"	.....
16-inch.....	19"	16"	13"	17 1/2"	2 1/4"	8	1 1/4"	3"	1 1/2"	.....
18-inch.....	21"	18"	15"	19 1/2"	2 1/4"	8	1 1/4"	3"	1 1/2"	.....
24-inch.....	27"	24"	21"	25 1/2"	2 1/4"	12	1 1/4"	3"	1 1/2"	10 1/2"
30-inch.....	33"	30"	27"	31 1/2"	2 1/4"	12	1 1/4"	3"	1 1/2"	13 1/2"



CUT No. 5079

DIMENSIONS—EXHAUST FANS

Size of Fan	A	B	C	D	E	F	G	H	I
12-inch A. C. ....	4 7/8"	3	1 1/2"	12 3/4"	14 3/4"	15 1/2"	2 3/4"	7 3/4"	8 1/4"
12-inch D. C. ....	4 7/8"	3	1 1/2"	12 3/4"	14 3/4"	15 1/2"	2 3/4"	7 3/4"	8 1/4"
16-inch A. C. ....	6 1/8"	4	1 1/2"	16 1/2"	19 1/2"	21 3/4"	2 3/4"	9 3/4"	10 1/4"
16-inch D. C. ....	6 1/8"	4	1 1/2"	16 1/2"	19 1/2"	21 3/4"	2 3/4"	9 3/4"	10 1/4"
18-inch A. C. ....	7 1/8"	4	1 1/2"	18 1/2"	21 3/4"	23 3/4"	2 3/4"	9 3/4"	10 1/4"
18-inch D. C. ....	7 1/8"	4	1 1/2"	18 1/2"	21 3/4"	23 3/4"	2 3/4"	9 3/4"	10 1/4"
24-inch A. C. ....	8 1/2"	4	1 1/2"	24 1/2"	28 1/2"	31 1/2"	3 3/4"	13 3/4"	14 1/4"
24-inch D. C. ....	8 1/2"	4	1 1/2"	24 1/2"	28 1/2"	31 1/2"	3 3/4"	13 3/4"	14 1/4"
30-inch A. C. ....	11 1/4"	4	1 1/2"	30 1/4"	35 1/4"	39 1/4"	4 3/4"	16 3/4"	17 1/4"
30-inch D. C. ....	11 1/4"	4	1 1/2"	30 1/4"	35 1/4"	39 1/4"	4 3/4"	16 3/4"	17 1/4"

PRICES AND DATA—EXHAUST FANS—PERFORMANCE UNDER FREE AIR DELIVERY CONDITIONS

Codeword	Size Fan	Frame	H. P.	High Speed					Low Speed					Weight		List Price
				Watts	Amps.	R.P.M.	C.F.M.	C.F.H.	Watts	Amps.	R.P.M.	C.F.M.	C.F.H.	Net	Pkd.	
FOR 110 VOLTS, 60 CYCLES, SINGLE PHASE—220 VOLT FURNISHED AT SAME PRICES																
Lakel.....	12"	S4SM	1/50	70	1.1	1140	850	51,000	60	.80	860	725	43,500	21	26	\$ 39.00
Lakim.....	16"	S5SG	1/20	135	2.5	1140	1,500	90,000	110	1.9	860	1,125	67,500	47	57	54.00
Lakon.....	18"	S6ST	1/8	165	3.3	1140	2,350	141,000	105	2.0	860	1,750	105,000	55	70	76.00
Lakup.....	24"	S7SG	1/6	280	5.6	860	4,000	240,000	200	4.3	570	2,700	162,000	112	150	127.00
Lamen.....	30"	S9SD	1/3	430	8.2	685	6,700	402,000	355	8.0	570	5,600	336,000	218	263	168.00
FOR 110 VOLTS, 50 CYCLES, SINGLE PHASE—220 VOLT FURNISHED AT SAME PRICES																
Lamip.....	12"	S4SM	1/50	50	.80	960	720	43,200	50	.70	710	620	37,200	21	26	39.00
Lamor.....	16"	S5SG	1/30	95	1.6	960	1,250	75,000	80	1.2	710	950	57,000	47	57	54.00
Lamus.....	18"	S6ST	1/15	115	2.4	960	1,950	117,000	95	1.7	710	1,450	87,000	55	70	76.00
Lanep.....	24"	S7SG	1/10	210	4.2	710	3,350	201,000	165	3.2	480	2,250	135,000	112	150	127.00
Lanir.....	30"	S9SD	1/3	430	7.3	710	7,000	420,000	260	5.1	480	4,750	285,000	218	263	168.00
FOR 220 VOLTS, 60 CYCLES, THREE PHASE																
Lapuv.....	18"	P6SF	1/8	175	1.0	1140	2,350	141,000	Variable speed operation obtained by use of 3-speed control units listed below.					55	70	81.00
Lares.....	24"	P7SC	1/6	230	1.6	860	4,000	240,000						112	150	104.00
Larit.....	30"	P9SF	1/3	355	2.5	685	6,700	402,000						218	263	125.00
FOR 220 VOLTS, 50 CYCLES, THREE PHASE																
Larov.....	18"	P6SF	1/15	90	.6	960	1,950	117,000	Variable speed operation obtained by use of 3-speed control units listed below.					55	70	81.00
Lasst.....	24"	P7SC	1/10	200	1.5	710	3,350	201,000						112	150	104.00
Lasiv.....	30"	P9SF	1/3	390	2.0	710	7,000	420,000						218	263	125.00
FOR 115 VOLTS DIRECT CURRENT (SERIES WINDING)—220 VOLT FURNISHED AT SAME PRICES																
Idnav.....	12"	D4SI	1/30	40	.35	1140	850	51,000	Variable speed operation obtained by use of speed regulator in series with motor—50% reduction obtained.					18	23	39.00
Idnew.....	16"	D5SD	1/20	80	.70	1140	1,500	90,000						43	53	50.00
Idnix.....	18"	D6SF	1/8	127	1.1	1140	2,350	141,000						52	67	72.00
Idnoy.....	24"	D8SD	1/6	242	2.1	860	4,000	240,000						110	147	140.00
Idnuz.....	30"	D11SE	1/3	392	3.4	685	6,700	402,000						215	260	168.00

Single-phase and three-phase, 60-cycle fans, also 115 and 220 volt direct current, are regularly carried in stock at St. Louis, New York City and Chicago.

C.F.M.—Cubic feet of air per minute. C.F.H.—Cubic feet of air per hour.

Fans for 25-cycle same price as 60-cycle.

Speed regulators not required or regularly furnished with three-phase or direct-current fans. Three-speed control units for three-phase fans are listed below.

Standard fan duty speed regulators are recommended for use with direct-current fans, these should be of same horsepower rating as stamped on motor name plate.

PRICES—CONTROL UNITS FOR 220 VOLT, 60 CYCLE, THREE-PHASE EXHAUST FANS—THREE SPEEDS

Where speed regulation is desired these three-speed control units can be used in connection with Emerson exhaust fans. They are available for the sizes shown.

Codeword	Size Fan, Inches	Fast Speed	Medium Speed	Slow Speed	Weight		List Price
					Net	Packed	
Luyev.....	18	1140 R. P. M. 2350 C. F. M.	875 R. P. M. 1800 C. F. M.	600 R. P. M. 1240 C. F. M.	26	41	\$25.50
Luyox.....	24	860 R. P. M. 4000 C. F. M.	600 R. P. M. 2800 C. F. M.	340 R. P. M. 1600 C. F. M.	26	41	25.50
Lusev.....	30	685 R. P. M. 6700 C. F. M.	500 R. P. M. 4900 C. F. M.	280 R. P. M. 2700 C. F. M.	32	47	30.00

PRICES—AUTOMATIC SHUTTERS

Codeword	For Fan Size	Wt. Pkd.	List Price
Juron.....	12"	6	\$ 5.50
Jusan.....	16"	10	7.60
Juseg.....	18"	12	9.00
Jush.....	24"	16	13.00
Juox.....	30"	22	24.50

Carried in stock at St. Louis, Mo., only. Prices and Data Subject to Change without Notice.

The EMERSON Electric Mfg. Co., St. Louis

Branches: NEW YORK • DETROIT • CHICAGO